CLAIMS:

1. A communication system comprising:

a radio module operable to generate an RF signal at a predetermined frequency; and

a directional coupler operably connected to said radio module to measure the power of said RF signal, said directional coupler further comprising:

an envelope detector; and

distortion minimization circuitry operable to minimize distortion generated by said envelope detector at frequencies corresponding to said predetermined frequency and harmonics thereof.

2. The communication system of claim 1 wherein said envelope detector comprises a detector diode and a capacitor.

3. The communication system of claim 2, wherein said distortion minimization circuitry comprises a first capacitor connected to said diode, said first capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the fundamental frequency of said RF signal.

4. The communication system of claim 3, wherein said distortion minimization circuitry further comprises a second capacitor connected to said diode, said second capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the second harmonic of said fundamental frequency of said RF signal.

5. The communication system of claim 4, wherein said distortion minimization circuitry further comprises a third capacitor connected to said diode, said third capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the third harmonic of said fundamental frequency of said RF signal.

6. The communication system of claim 5, wherein said first RF signal has a fundamental frequency in the 2.4 GHz band.

7. A method of measuring the transmitted power of an RF signal, comprising:
generating an RF signal at a predetermined frequency;
measuring the transmitted power of said RF signal using a directional coupler having an envelope detector and
minimizing distortion generated by said envelope detector at frequencies corresponding to said predetermined frequency and harmonics thereof.

8. The method of claim 7 wherein said envelope detector comprises a detector diode and a capacitor.

9. The method of claim 8, wherein said distortion is minimized by connecting a first capacitor connected to said diode, said first capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the fundamental frequency of said RF signal.

10. The method of claim 9, wherein said distortion is minimized by connecting a second capacitor to said diode, said second capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the second harmonic of said fundamental frequency of said RF signal.

11. The method of claim 10, wherein said distortion is minimized by connecting a third capacitor to said diode, said third capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the third harmonic of said fundamental frequency of said RF signal.

12. The method of claim 11, wherein said first RF signal has a fundamental frequency in the 2.4 GHz band.

13. An integrated circuit for enabling data communication between a host device and at least one wirelessly enabled external device, comprising:

a host interface;

a radio module operably connected to said host interface, wherein said radio module is operable to generate an RF signal at a predetermined frequency; and

a directional coupler operably connected to said radio module to measure the power of said RF signal, said directional coupler further comprising:

an envelope detector; and

distortion minimization circuitry operable to minimize distortion generated by said envelope detector at frequencies corresponding to said predetermined frequency and harmonics thereof.

14. The communication system of claim 13 wherein said envelope detector comprises a detector diode and a capacitor.

15. The communication system of claim 14, wherein said distortion minimization circuitry comprises a first capacitor connected to said diode, said first capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the fundamental frequency of said RF signal.

16. The communication system of claim 15, wherein said distortion minimization circuitry further comprises a second capacitor connected to said diode, said second capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the second harmonic of said fundamental frequency of said RF signal.

17. The communication system of claim 16, wherein said distortion minimization circuitry further comprises a third capacitor connected to said diode, said third capacitor having a capacitance value for minimizing distortion in the frequency band corresponding to the third harmonic of said fundamental frequency of said RF signal.

18. The communication system of claim 17, wherein said first RF signal has a fundamental frequency in the 2.4 GHz band.